



# UNITED STATES DEPARTMENT OF COMMERCE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/400,140	03/06/95	JEFFREY M	OPT/4265-US

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26M1/1209

EXAMINER

KIZOU, H

ART UNIT

PAPER NUMBER

2603

DATE MAILED: 12/09/96

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**08/400,140**

Applicant(s)  
**Jeffrey et al.**

Examiner  
**Hassan Kizou**

Group Art Unit  
**2603**



☒ Responsive to communication(s) filed on Sep 23, 1996

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 9-14 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 9-14 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. Claims 9-14 are rejected under 35 U.S.C. § 103 as being unpatentable over Takeuchi et al. (US Patent 5233603) in view of Beshai et al. (US Patent 5168492). Takeuchi et al. discloses a packet switch -Figure 8- comprising a plurality of switch units #1 to #P (parallel data switching planes) and an address controller 238 (control plane). Each switch unit has an equal number N of input ports (inputs to S/P's 1091 to 109N) and output ports (outputs of S/P's 1171 to 117N), and a central switch unit (bus 215 and FIFO's 2171 to 217N). See column 7, line 29 through column 10, line 39. Data is switched between the inputs and outputs of the packet switch in blocks of 8 bits (in octets) as indicated in column 8, lines 21-23. The reference however does not disclose that the packet switch is an STM switch (as in claim 8) and does not disclose the rotator means (as in claims 3-8). Beshai et al., in the same field of endeavor, discloses an ATM switch as shown in Figure 2, and suggests in column 6, lines 31-49, that the switch can be readily adapted to perform STM switching (see also Figure 5). Given that ATM switching is not well suited to handle synchronous traffic (delay sensitive traffic such as voice and video), it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the ATM switch of Takeuchi et al. to STM switching, as suggested by Beshai et al., in order to accommodate synchronous traffic. Beshai et al. also discloses rotators 20 and 20 connected to the inputs and

outputs of a switch 18, as shown in Figure 2 (packet buffers 18 function as space switch; see column 4, lines 1-2). it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takeuchi's switch so as to use rotators, as taught by Beshai et al., since Beshai et al. states in the abstract that using rotators has the advantages of reducing the switch hardware complexity and (in the ATM mode) eliminating arbitration. It would also have been obvious to one of ordinary skill in the art at the time the invention was made to use multistage rotators, since Beshai et al. further discloses that a multistage arrangement of rotators reduces the number of rotators required compared to that required for a square rotator arrangement (see column 7, lines 15-20).

### ***Response to Arguments***

2. Applicants' arguments filed 9/23/96 have been fully considered but they are not persuasive.

Applicants argue that it is not possible to include the rotators in Takeuchi by any simple means; that examiner's suggestion has no foundation; and that there is no indication or teaching in Takeuchi and Beshai as to how the references can be combined. Examiner respectfully disagrees with Applicants' opinion. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed

invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In response to applicants' argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. *In re McLaughlin*, 443 F.2d 1392; 170 USPQ 209 (CCPA 1971).

### ***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire **THREE MONTHS** from the date of this action. In the event a first response is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date

of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Kizou whose telephone number is (703) 305-4744. The examiner can normally be reached on Monday through Thursday from 8:00 am to 5:30 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms, can be reached on (703) 305-4703. The fax phone number for this Group is (703) 305-9509.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.



**H. Kizou**  
**Primary Examiner**  
**G.A.U. 2603**

December 7, 1996